Threshold Determination: Options for Statewide Consistency

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Preamble

Assignment 3 was to characterize options for how to achieve state-wide consistency in threshold determinations (*i.e.*, the "significance threshold"). At the July 8, 2008 IWG meeting, the sense of the group was that there should be state-wide consistency for making threshold determinations for projects with climate change impacts, but the form of that consistency was an open question. In this memorandum, we have expanded upon three approaches to achieve state-wide consistency: (1) an actual state-wide standard; (2) a state-wide framework which includes some limitations/requirements for a standard and leaves choices to individual agencies on other aspects of a standard; and (3) a state-wide procedural requirement that would allow and/or mandate local agencies to establish a standard of "significance," without expressly dictating what that standard should be.

Our discussion below does not address or decide whether a "significance" standard should take the form of a new or amended regulation or guidance document. We presume, at this point in time, that each of the three approaches may be able to be done through a rule or a guidance document or some combination of the two.

Our discussion also below does not address specifically how mitigation should fit into this standard, although we acknowledge that one type of threshold determination (and perhaps currently the most commonly used) is a "Mitigated Determination of Non-Significance." Finally, we note that the establishment of a specific, substantive state-wide standard for "significant" greenhouse gas/climate change impacts would be novel under SEPA. (Currently, there is no set substantive standard for a "significance" threshold for different types of impacts -- that determination is made by lead agencies on a case-by-case basis.)

SEPA IWG: Option 1 Statewide Standard for Significance
July 18, 2008
Hilary Franz and Patricia Betts

Issue: Options for State Consistency in Determining "Significance" for SEPA Threshold Determination

Guiding principles:

- achieve consistency and predictability across jurisdictions
- achieve appropriate analysis and support appropriate mitigation for impacts from GHG emissions (interconnectedness with the other major components of SEPA)
- threshold/standard is scientifically based
- standard is understandable and feasible for all agencies to use
- retains SEPA's umbrella role and ability to address unanticipated gaps in regulations
- flexibility to adjust based on new science and better tools
- reduce SEPA litigation based on unclear threshold standard

Option 1: Develop a Statewide Standard for determining significance

Description of Option
Department of Ecology would identify a statewide standard, for determining whether a proposal causes significant adverse environmental impacts from its greenhouse gas emissions. The standard could be considered mandatory and could be set in rule. The standard could be a single standard, different standards according to size or type, a range of standards, or tiered according to mitigation. The standard could be legally required or could be advisory.

Decisions That Will Still Need to Be Made if This Option is Chosen

- How mandatory should the standard be? (set in rule or described in guidance?)
- What should the standard look like for non-project?
- Should the standard be one approach for all projects or should it be based on size of project, type of project?
- Should the standard be tiered to include incentives for well-designed projects?
- Should the standard make a strong connection between non-project analysis and a projects TD?
- If there will be statewide standard, would it be a single standard, tiered standards, etc.?
- Should the Significance Threshold be used as a means of complying with State wide emission reduction goals?
- Should the state wide emission reduction goals be used as a guideline in developing a significance Threshold for GHG?

Rationale for and/or against this Option

This option has enough strengths that it should be considered and should, at a minimum, significantly influence the final choice. Predictability, consistency, and time savings are three strengths. Also, a standard that has received statewide vetting will be compelling to use and compelling to accept. The standard must be flexible and usable for small jurisdictions. The decision tree option (which provides multiple paths for determining significance) would provide flexibility.

Advantages of this Option

- Would provide most predictability and consistency
- Would be least work for agencies when whole standard is provided; saves agencies money figuring out what to do; less resource intensive
- Provides agencies with confidence about using a standard that comes with a state level endorsement
- More easily understood by the public, applicants, and lead agencies
- Reduces chances of having to wait years for legal challenges to define a significance threshold.
- Reduces state and local jurisdiction legal vulnerability

Disadvantages of this Option

- Could be a challenge to ensure flexibility (for small jurisdictions, for all situations)
- If in rule:
    - more of a challenge to be adaptable
    - challenge to ensure ability to adjust to new info

Implications for Mitigation

- Could set clear sense of when mitigation would reduce below the threshold

Other Considerations

- State and local agency resource impacts costs and staffing
- Single threshold v. Multiple threshold
- Short term vs. long-term considerations
- Time frame of analysis, impacts and mitigation for projects

SEPA IWG Threshold Determination Options:
#2 Significance Threshold Framework Options

July 21, 2008
Annie Szvetecz
Matt Kuharic

Issue: Options for State Consistency in Determining "Significance" for SEPA Threshold Determination

Option: Recommendation for Ecology to Develop a Statewide Framework for Determining Significance of GHG Emissions

Description of Option
The intention is to provide a common platform for public agencies to ensure that GHG emissions are appropriately considered and addressed under SEPA while climate action plans and other regulatory programs for climate change impacts are being developed.

Framework Option:

Overall Advantages of this Option
- Flexibility for each agency
- Flexibility to address referenced emissions limits/targets
- Flexibility to address best available science and available mitigation

Overall Disadvantages of this Option
- Potential lack of statewide consistency
- Potential legal conflict between jurisdictions/agencies

Examples of Flexible Ranges of Standards:

[Compilers note: below are some examples of the form a flexible standard could take. The pros and cons of each types of standard are described in the attachment]

1. A flexible range of % based reductions compared to "unmitigated" or "business as usual" scenarios
   - e.g. choose between 15-100% better than an unmitigated scenario (e.g. King County)

2. A flexible range based on amount of actual GHG emissions
   - e.g. choose between 500 and 5,000 MTCO2e

3. A flexible threshold depending on the type and size of the proposal (e.g. Massachusetts)
   - e.g. choose between a number of units (5- 20 residential units)

- e.g. choose another GHG emissions reporting requirement (WA State emissions reporting requirement beginning in 2010: 2,500 for mobile sources and 10,000 MTCO2e for stationary sources)

Decisions That Will Still Need to Be Made if This Option is Chosen

- Is the framework or sideboards optional (guidance) or mandatory (via rule change) for making the threshold determination?
- How can the framework be adjusted to accommodate changes in best available science, reference targets etc.?
- What are the legal risks with potential inconsistencies between agencies and within agencies between different proposals?

Implications for Mitigation

- Framework Option #1: Percentage below an unmitigated scenario.
    - Choosing a % reduction defines what a project that is not significant must accomplish. It does not necessarily define if projects that do not mitigate to this level are significant.
- Framework Options #2 and #3
    - Because it does not make sense to penalize large sized projects indiscriminately, mitigation standards would likely need to be independently determined.

SEPA IWG: Threshold Determination Options
#3 Procedural Requirement to Establish Agency-Specific Standard

July 21, 2008
Dick Settle (reformatted from his email)

Issue: Options for State Consistency in Determining "Significance" for SEPA Threshold Determination

Option: Recommend to CAT and Ecology that there should be a procedural requirement for all SEPA agencies to establish their own threshold standard of significance for GHG emissions

Description of Option

- Agencies would be required to establish a threshold standard of significance for GHG emissions by a specified date.
- The requirement would be enacted by amendment of SEPA Rules or the SEPA statute.
    - It would not necessarily impose any limitations on the content of the GHG significance standard adopted by the agencies, i.e. there could be very broad sideboards within which agencies must establish their standards.
- There could be information and guidance for agencies to draw upon in complying with the procedural requirement to establish a significance standard.
- The SEPA Rules require agencies to adopt SEPA Procedures addressing a lot of areas of SEPA compliance.
    - Some of these requirements are purely procedural with no state limitations on the content of the agency SEPA procedures; other such requirements are constrained by state requirements or bookends.
    - Most of GMA's requirements for local governments are procedural in nature; and a number of GMA requirements go further and constrain local governments with some state requirements or bookends limiting the range of local discretion.
        - Such procedural requirements usually include a deadline for compliance and some kind of sanction for noncompliance. However, sometimes there are no sanctions.
    - Regarding agency adoption of SEPA procedures, which had an initial deadline of 180 days, if an agency failed to adopt SEPA Procedures, the agency is bound by the statewide SEPA Rules to the extent "practicable". See WAC 197-11-918.

Decisions That Will Still Need to Be Made if This Option is Chosen
What level or form of "requirement" will this take on (rules, guidance, statutory change)?

Attachment A – Options for Significance Standard

This Appendix discusses six options that can be pursued when contemplating the issue of SEPA standard significance thresholds for greenhouse gas emissions. This Appendix explores each option and discusses the advantages and disadvantages of each.

I. DEGREE OF REQUIREMENT

- Set in rule, required to be used for determining significance (and possibly used for determining mitigation)

- Presented in guidance, directing agencies to use it for determining significance, but with no "teeth" nor directive for agencies to adopt it.

II. SINGLE STANDARD

1) Zero Significance Threshold -

(1) This approach sets the GHG emission threshold at zero tons/year. Under this approach any increase in emissions would be significant in light of State's greenhouse gas reduction requirement.

(2) Projects that result in a reduction of GHG emissions compared to baseline emissions would be less than significant absent mitigation. Projects that result in a net increase of GHG emissions would be required to mitigate their emissions to zero.

(3) This threshold approach is based on the belief that 1) all GHG emissions contribute to global climate change and could be considered significant, and 2) not controlling emissions from smaller sources would be neglecting a major portion of the GHG inventory.

(4) For a Project Action: Steps are: 1) inventory of GHG emissions generated by project, 2) inventory of energy needs of project, and 3) provide onsite and offsite mitigation that may include buying emission credits to reduce GHG emissions to net zero.

(5) For a Non-Project Action: 1) provide an inventory of GHG emissions generated within the planning area, 2) provide an inventory of energy needs of the planning area, 3) develop a GHG Reduction Plan for the planning area that implements the GHG Emission Reduction to zero

- *Advantages*:
  - Addresses the cumulative impact of many small GHG sources. While individually many GHG sources are too small to make any noticeable difference to climate change, it is also true that the countless small sources around the globe combine to

produce a very substantial portion of total GHG emissions.

- Under this option, all projects subject to SEPA would be required to quantify and mitigate their GHG emissions. All would fall under the SEPA microscope.
- Potentially greater degree of certainty for project proponents

- *Disadvantages*:
  - Increased administrative costs and pressure on environmental review system capacity given that some projects that previously would have qualified for an exemption could require substantial analysis.
  - May be that the increased volume of projects requiring review reduces the quality of consideration given to review worst projects

Questions: Does establishing a significance threshold of zero preclude the use of categorical exemptions?

2) Non-zero Significance Threshold:

Under this approach a number of options exist. A project would be required to meet the targets set under the approach or reduce GHG emissions to the targets to be considered less than significant.

(1) Option 1: Exceeding x tons/year of GHG emissions of a project – Set a bright line approach (numerical threshold) – this could be based on Market

- Advantages
  - Excludes small projects that have a relatively small contribution to state GHG inventory
  - Single threshold easier to apply to projects and more easily understood by the public, applicants and lead agencies.
- *Disadvantages*
  - If set too low may discourage mitigation and if set too high may not capture enough projects to meet state goal of GHG reduction targets

(2) Option 2: Meeting WA State GHG Reduction Goal –

(1) WA state set goal of reducing statewide GHG emissions to 50 % below 1990 levels by 2050. Reducing GHG emission levels 50 % below 1990 levels would require a certain percent reduction of business as usual GHG emissions. This threshold option would require a project/non project to show a percent reduction target in order to be considered less than significant.

(2) This approach is based on the presumption that a new project must at least be consistent with the State's GHG emission reduction mandates.

Example, the state could follow the San Bernardino example; each agency determines their 1990 emissions, their current emissions, and their projected emissions. They then calculate necessary reductions/net emissions to meet target goals. Any proposal that does not meet the reduction (net emissions) goals, would be considered to have significant impacts on climate, and all the climate change associated indirect effects.

3) Option 3: Uniform Based Percentage Reduction

(1) State would adopt a percentage reduction below business as usual necessary to reach set level overall as end strategy (could be part of achieving the state goal or based on science). For example, to reduce GHG emissions to 1990 levels by set date could require an X percent reduction of business as usual GHG emissions.

(2) This threshold approach is based on projecting what the state's GHG emissions would have been at a set date in the future, and the difference between that level and an established level or the level that existed at an earlier date (e.g. 1990) constitutes the reductions that must be achieved if the standard is to be met.

(3) For a Project Action: A project would be required to meet a percent reduction target based on the average reductions needed from the business-as-usual emission from all GHG sources to be considered less than significant. Example, if use a 2020 target, it may require a XX percent reduction from projected business as usual emissions. Or can use a 2050 target, which may require a XX percent reduction.

(4) For a Non-Project Action: Including in Planning documents measures necessary to reach percentage reduction in GHG. Such measures could include mitigation in the area of energy efficiency and conservation, recycling and waste management, transportation, water, and land use and design.

- *Advantages of Options 2-3 Percentage Based Approach*:

➢ Using a percentage/time based goal as the basis for a significance threshold may be more appropriate to address the long term adverse impacts associated with climate change

➢ If this goal is connected to the state wide goal then it presents more likelihood of actually achieving state-wide goal

- *Disadvantages of Options 2-3 Percentage Based Approach*:

- Difficult to allow for changes in the baseline and future emission inventories estimates

- Projecting future inventories over the next 15 to 50 years involves uncertainty.

4). Option 4: Standard Threshold By Type of Project

1) Approach 1: Quantitative Threshold Based on Market Capture

a. Residential: Review data from at least 20 diverse cities and counties on pending applications for development. Determine the unit threshold that would capture approximately 90 percent of the residential units in the pending application lists. Ex. CA: Based on data, thresholds selected could be 50 residential units. GHG emissions associated with 50 single-family residential units is 900 metric tons. So single threshold of 900 metric tons for residential projects

b. Office: Similar approach for residential with threshold being 30,000 square feet. Single threshold of 900 metric tons was also thus selected.

c. Industrial: Less amenable to a unit-based approach given diversity of projects within sector. Option would be to adopt a quantitative GHG emissions threshold for industrial projects equivalent to that for the residential/commercial thresholds.

- Advantages

- Proposed threshold would exclude the smallest proposed developments from potentially burdensome requirements to quantify and mitigate GHG emissions

- Captures 90 percent of each market to show that cumulative reductions are being achieved

- Requires vast majority of new dev't emission sources to quantify GHG

- *Disadvantages*

- Requires extensive information on jurisdictional applications for each economic sector.

- Data changes over time

- Necessary data and resources not likely available presently.

2) Approach 2: Uniform Percentage-Based Reduction by Economic Sector/ by Region

   a. For Project Action: This threshold option would use a GHG reduction goal specific to the economic sector associated with a project. There would be specific reduction goals for each economic sector (residential, commercial, and industrial).

   b. For Non-Project Action: This uniform percentage based reduction could also be applied to a geographic region for purposes of non-project action. The threshold standard could specify a percentage level for regions of the state. The areas within each region required to plan must then demonstrate that through their plans they are in compliance with the percent reduction goal.

- *Advantages*

➢ For the Project Action, Allows selection of the best regulatory goal for each sector taking into account available technology and costs

➢ Avoids over-regulating projects (i.e., requiring emissions to be controlled in excess of existing technology) or under-regulating projects (i.e., discouraging the use of available technology to control emissions in excess of regulations)

- *Disadvantages*

➢ Requires extensive information on the emission inventories and best available control technology for each economic sector.

➢ More viable option in the long term but necessary data and resources not likely available presently.

3) Approach 3: Identify certain types of projects (e.g., industrial projects, mining projects, road projects) as significant without mitigation and prescribing feasible mitigation measures based on project size and type

5. Option 5: Standard Threshold by Size of Project

   1) Approach 1: Projects of a certain size would qualify as exceeding the threshold:
   Example, proposed residential of more than x dwelling units, proposed shopping center or business employing more than x number of people or encompassing more than x square feet of floor space, proposed hotel of more than x rooms.

6. Option 6: Tiered Approach/Decision Tree Approach

a. The goal of this approach is to maximize reduction predictability while minimizing administrative burden and costs.

b. This approach would "bin" projects based on established characteristics, with increasing requirements for each bin, or tier

Tier 1: *Less than Significant*:

Emissions associated with a project/plan are assumed to have a significant impact unless one can arrive at a less-than-significant finding by at least one of the following methodologies:

a. For Non Project Action, Demonstrate that a General Plan is in compliance with State's goal or other stated standard: GP fully document 1990 and 2020/50GHG emission inventories, where demonstrate its 2020/50 mitigated emissions are less than or equal to 1990 emissions than it is considered less than significant

b. For Project Action, show project can reach zero threshold – net GHG reduction or complies with Quantitative (tons/year) or Qualitative (unit-based market capture- # of dwu, sq ft space or per capita ratio) approach

c. For Project Action, Demonstrate the Project is Exempt

(Example, for CA projects funded under its Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act and Disaster Preparedness and Flood Prevention Bond Act may be exempt)

d. For Project Action, Demonstrate that the project is on the "Green List". The Green List would consist of a list of projects and project types that are deemed a positive contribution to state efforts to reduce GHG emissions. (Ex. A wind farm that had negligible construction emissions; Extension of transit lines to currently developed but underserve communities; Projects with LEED "Platinum" rating; Recycled water projects that reduce energy consumption related to water supplies)

e. For Project Action, Consistency with GHG Reduction Plan: Demonstrate a project is consistent with an appropriate General Plan's GHG Reduction Plan (GGRP), a project can be declared less than significant. Comprehensive planning would analyze GHG emissions, significance, mitigation, etc. and develop a Greenhouse Gas Reduction Plan (GGRP). Project would start with analysis done at non-project stage and verify if the project was consistent with the plan and if appropriate non-project analysis for GHG emissions was conducted . Requires thorough GHG analysis at non-project level.

Tier 2: *Mitigated to Less than Significant*:

In Tier 2, projects would be required to implement the comprehensive set of

Level 2 mitigation if they exceed Tier 2 threshold.

a. Projects results in a net increase of GHG emissions, but mitigation to zero

b. Above Quantitative (tons/year) or Qualitative (unit-based market capture- # of dwu, sq ft space or per capita ratio) threshold so Level 2 Mitigation (Ex. Parking reduction beyond code, solar roofs, LEED Silver or Gold Certification, TDM meaasures, etc.)

Tier 3: *Significant and Unavoidable Impacts or Mitigated to Less than Significant*:
This threshold would distinguish the larger projects from the smaller ones. At this tier, the project would be required to reduce net emissions using Level 1 reductions, as well as Level 2 and 3 mitigation.

a. Projects may remain significant and unavoidable where mitigation infeasible to reduce emissions to zero (e.g., cost to offsets infeasible for project or offsets not available)

b. Above Quantitative or Qualitative threshold with Level 1 or 2 Mitigation. For Quantitative approach, could include such measures as on-site renewable energy system LEED Platinum certification, required recycled water use for irrigation, etc. that would mitigate to less than significant For Qualitative approach, apply Level 3 mitigation and offsets for remainder.

(See CAPCOA pg 39 for further detail on tiering approach)

- Advantages

➢ Allows flexibility by establishing multiple thresholds to cover a wide range of projects

➢ Tiers could be set at different levels depending on GHG emissions, size and characteristics of projects

➢ Could design to support WA state GHG reduction goals

- *Disadvantages*

➢ Similar disadvantages as explained in approaches above.

Table 1: Option 6 Tiering Approach

	Concept 2A -- Zero	**Concept 2B -- Quantitative**	**Concept 2C -- Qualitative**
Tier 1	Project results in a net reduction of GHG	Emissions below Tier 2 threshold	Project meets Tier 1 criteria Project in compliance

	emissions = *Less than Significant Impacts*	Project in compliance with a GHG Reduction Plan, on the Green List, or below Tier 2 threshold. = *Less than Significant if Level 1 Reductions applied* (Reductions like Energy Star roofs and appliances, water use efficiency, etc.)	with a GHG Reduction Plan, on the Green List. = *Less than Significant if Level 1 Reductions applied*
Tier 2	Project results in net GHG increase Mitigation to zero (including offsets) = *Mitigated to Less than Significant Impacts*	Emissions above Tier 2 threshold Level 2 Mitigation (Mitigation such as parking reductions beyond code, solar roofs, LEED standards) = *Less than Significant if Level 1 and 2 mitigations applied*	Project meets Tier 2 criteria Level 2 Mitigation Reductions necessary (see measures under 2B) = *Less than Significant if Level 1 and 2 mitigations applied*
Tier 3	Net GHG increase Not fully mitigated *Significant and Unavoidable Impacts*	Emissions above Tier 3 threshold Level 3 Mitigation (On-site renewable energy systems, LEED Platinum certification, zero waste/high recycling requirements, offsets/carbon impact fees, etc.) = EIS plus Level 1, 2 and 3 mitigation	Project meets Tier 3 criteria = EIS plus Level 1, 2 and 3 mitigation and offsets

III. FLEXIBLE STANDARD

A flexible standard would take one of the options set forth above and develop it around a more flexible range for lead agencies to use. The following are examples of types of flexible standards that could be developed:

4. Option 1: A flexible range of % based reductions compared to "unmitigated" or "business as usual" scenarios

   - e.g. choose between 15-100% better than an unmitigated scenario (e.g. King County)

   - Pros:

        - Part of rationale is that climate change is a cumulative problem, therefore, all projects that generate emissions must contribute to solving it
        - % Reduction could be tied to the climate goals of each agency
        - Threshold could have legal basis if tied to existing law or mandate
        - Easier to change/update this standard if the type and size of projects subject to it does not change through time
    - Cons
        - Could be difficult for businesses that deal with multiple SEPA lead agencies
        - A particular % reduction could lack a tie to any scientific rationale
        -

5. Option 2: A flexible range based on amount of actual GHG emissions
   - e.g. choose between 500 and 5,000 MTCO2e

    - Pros:
        - Could capture a certain % of development related emissions
        - Could be defined to capture most emissions but exclude small projects
        - Could lower burden on small developments
        - Could lower burden on SEPA lead agencies
    - Cons:
        - Requires knowledge of the type of projects and their GHG emissions that are likely to go through each SEPA lead agency

6. Option 3: A flexible threshold depending on the type and size of the proposal (e.g. Massachusetts)
   - e.g. choose between a number of units (5- 20 residential units)
   - e.g. choose another GHG emissions reporting requirement (WA State emissions reporting requirement beginning in 2010: 2,500 for mobile sources and 10,000 MTCO2e for stationary sources)

    - Pros:
        - Could be linked to a pre-existing standard
        - Could streamline process. Only projects that already have to do analysis X, for example, are significant